

**Notice of Allowability**

Application No.

10/086,304

Applicant(s)

PRONKO ET AL.

Examiner

Edna Wong

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendmnt dated April 8, 2004.
2. ☒ The allowed claim(s) is/are 1-28.
3. ☒ The drawings filed on 28 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

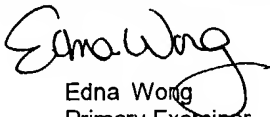
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 4-26-04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Edna Wong  
Primary Examiner  
Art Unit: 1753

***EXAMINER'S AMENDMENT***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Linda M. Deschere on April 26, 2004.

The application has been amended as follows:

**IN THE CLAIMS**

Claim 23, line 3, the words -- of first laser pulses -- have been inserted after the word "beam".

Claim 23, line 4, the word "an" (first occurrence) has been deleted and replaced with the words -- a first --.

Claim 23, line 7, the word "said" has been deleted and replaced with the words -- a plasma of step a) --.

Claims **29-46** have been cancelled.

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

Claims **1-11** are allowable over the prior art of record because the prior art does not teach or suggest a method for separating isotopes of an element comprising the steps of (a) directing; (b) after step (a), allowing; and (c) after step (b), directing as presently claimed, esp., the steps of (a) directing a first laser pulse onto a surface of a target at a first energy fluence sufficient to generate a plasma comprising ionized isotopic species and to generate an internal electromagnetic scattering field causing spatial separation of said ionized isotopic species; and (c) after step (b), directing a second laser pulse onto said plasma at a second energy fluence to further spatially separate said ionized isotopic species.

The prior art does not contain any language that teaches or suggests the above.

*Hora et al.* do not teach the steps of (a) directing a first laser pulse onto a surface of a target at a first energy fluence sufficient to generate a plasma comprising ionized isotopic species and to generate an internal electromagnetic scattering field causing spatial separation of said ionized isotopic species; and (c) after step (b), directing a second laser pulse onto said plasma at a second energy fluence to further spatially separate said ionized isotopic species. Instead, *Hora et al.* teach generating an external electromagnetic field and directing a second laser pulse onto the target.

Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Claims **12-22** are allowable over the prior art of record because the prior art does not teach or suggest a method for separating isotopes of an element comprising the steps of (a) directing and (b) after step (a), directing, as presently claimed.

The prior art does not contain any language that teaches or suggests the above. *Hora et al.* do not teach the steps of (a) directing a laser pulse onto a surface of a target having a first isotopic distribution, at an energy fluence sufficient to generate a plasma comprising ionized isotopic species and to generate an internal electromagnetic scattering field causing spatial separation of said ionized isotopic species; and (b) after step (a), directing a plurality of sequentially timed delayed pumping laser pulses onto said plasma to further spatially separate said ionized isotopic species. Instead, *Hora et al.* teach generating an external electromagnetic field and directing a plurality of sequentially timed delayed pumping laser pulses onto the target.

Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Claims **23-28** are allowable over the prior art of record because the prior art does not teach or suggest a method for separating isotopes of an element comprising the steps of (a) directing; (b) after step (a), allowing; and (c) after step (b), directing as presently claimed, esp., the steps of (a) directing a first laser beam of first laser pulses onto a surface of a target at a first energy fluence sufficient to generate an internal electromagnetic scattering field causing spatial separation of said ionized isotopic species; and (c) after step (b), directing one or more timed delayed second laser pulses

pulse onto said plasma at a second energy fluence to further spatially separate said ionized isotopic species.

The prior art does not contain any language that teaches or suggests the above. *Hora et al.* do not teach the steps of (a) directing a first laser beam of first laser pulses onto a surface of a target at a first energy fluence sufficient to generate an internal electromagnetic scattering field causing spatial separation of said ionized isotopic species; and (c) after step (b), directing one or more timed delayed second laser pulses onto said plasma at a second energy fluence to further spatially separate said ionized isotopic species. Instead, *Hora et al.* teach generating an external electromagnetic field and directing one or more timed delayed second laser pulses onto the target.

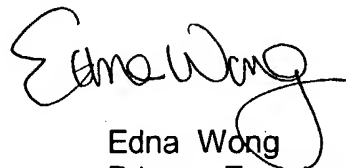
Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edna Wong  
Primary Examiner  
Art Unit 1753

EW  
April 26, 2004